

Figure 1 (Prior Art)

200

TO FFB00 DET HEAD

131524502

202

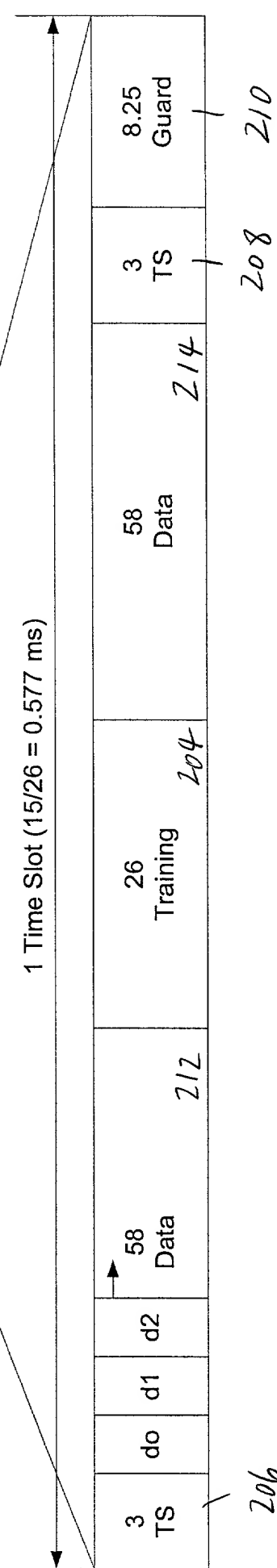
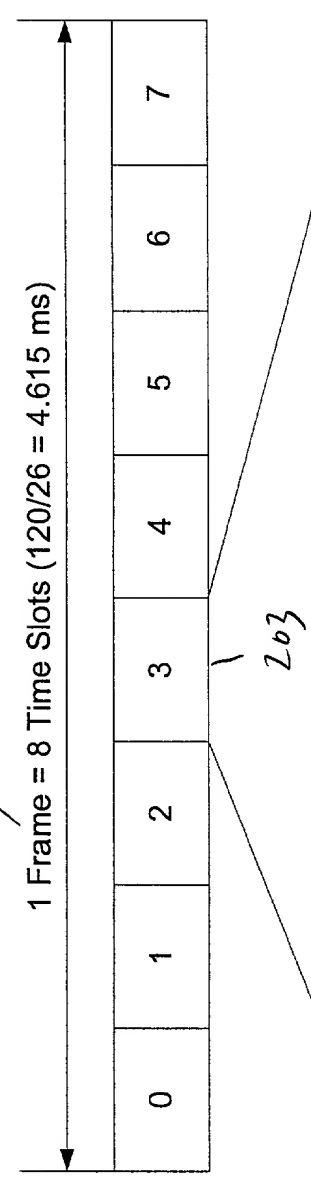
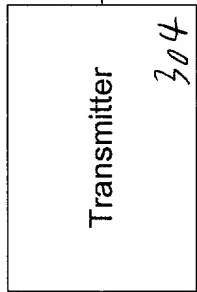
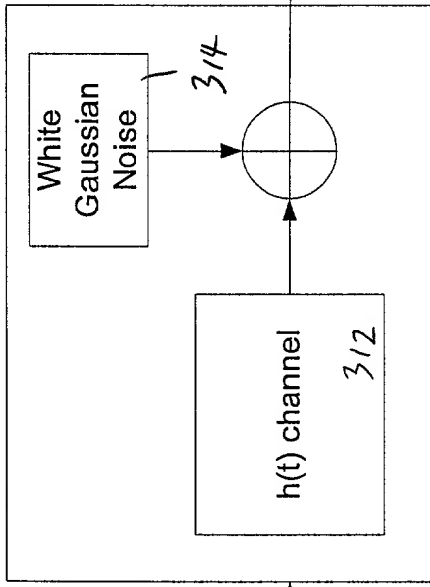


Figure 1 (Prior Art)

300

310

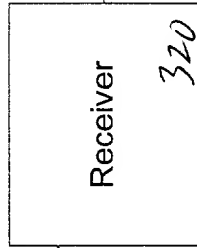
Channel



Information Bits

$s(t)$

302



Received  
Information  
Bits

322

Figure 3 (prior art)

400 ↗

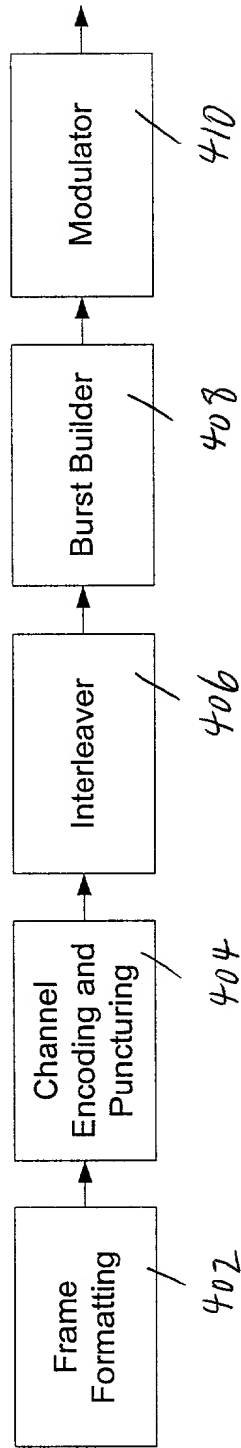


Figure 4

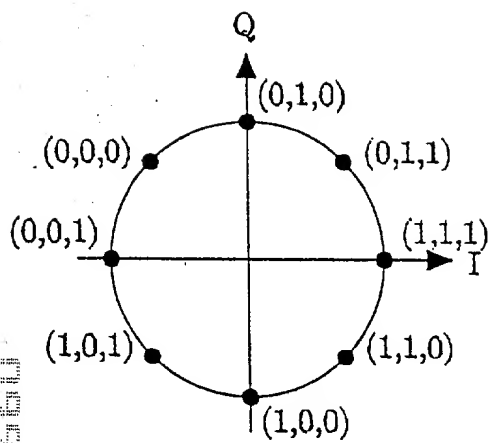


Fig. 5

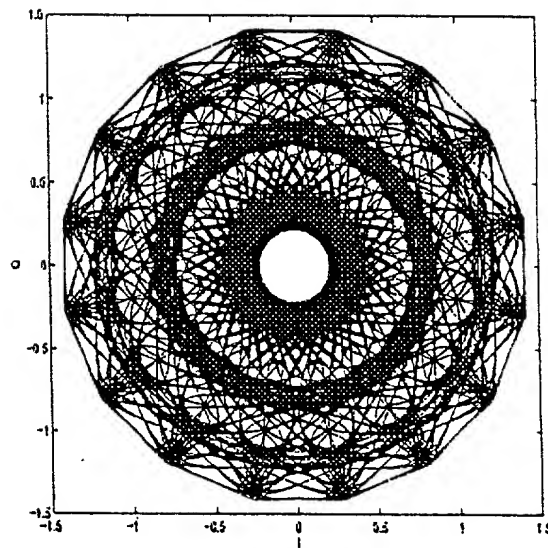


Fig. 6

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FIG. 7

700

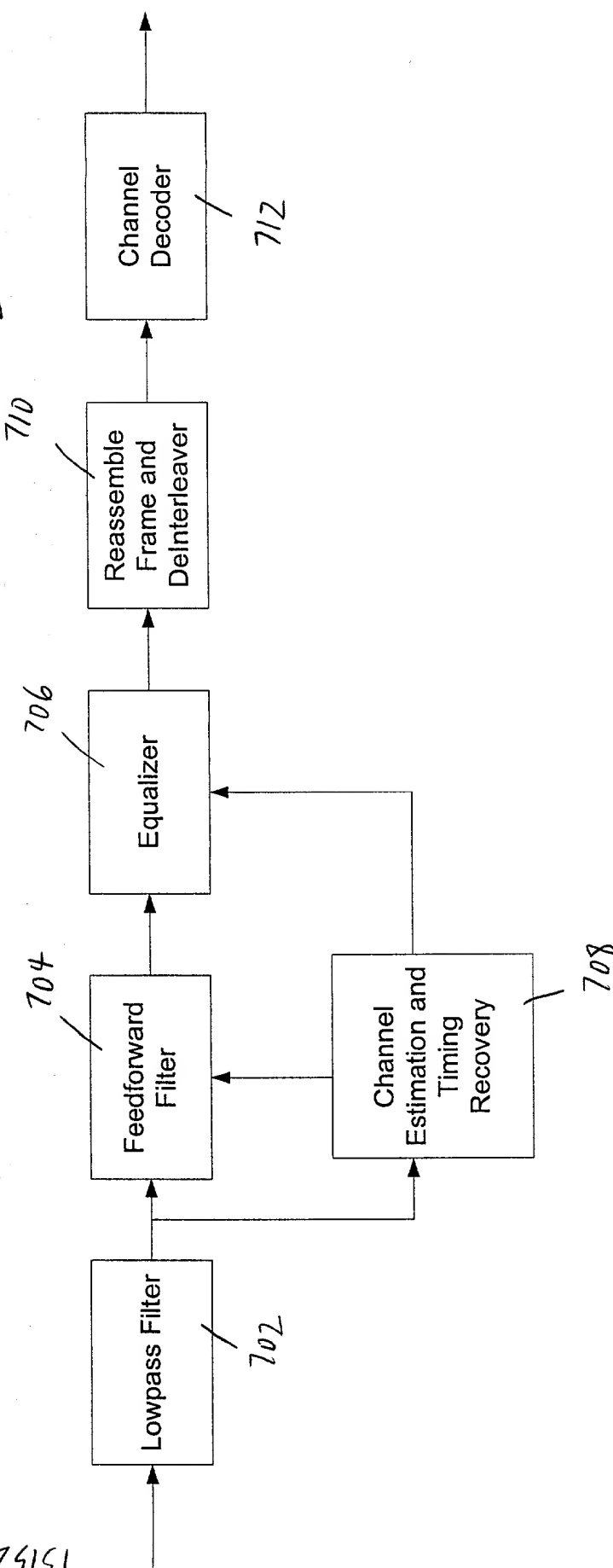


Figure 7

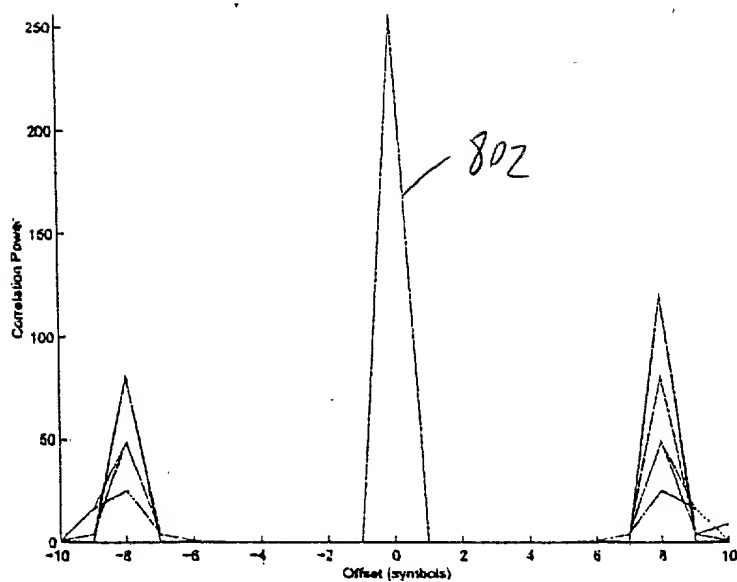


Fig. 8

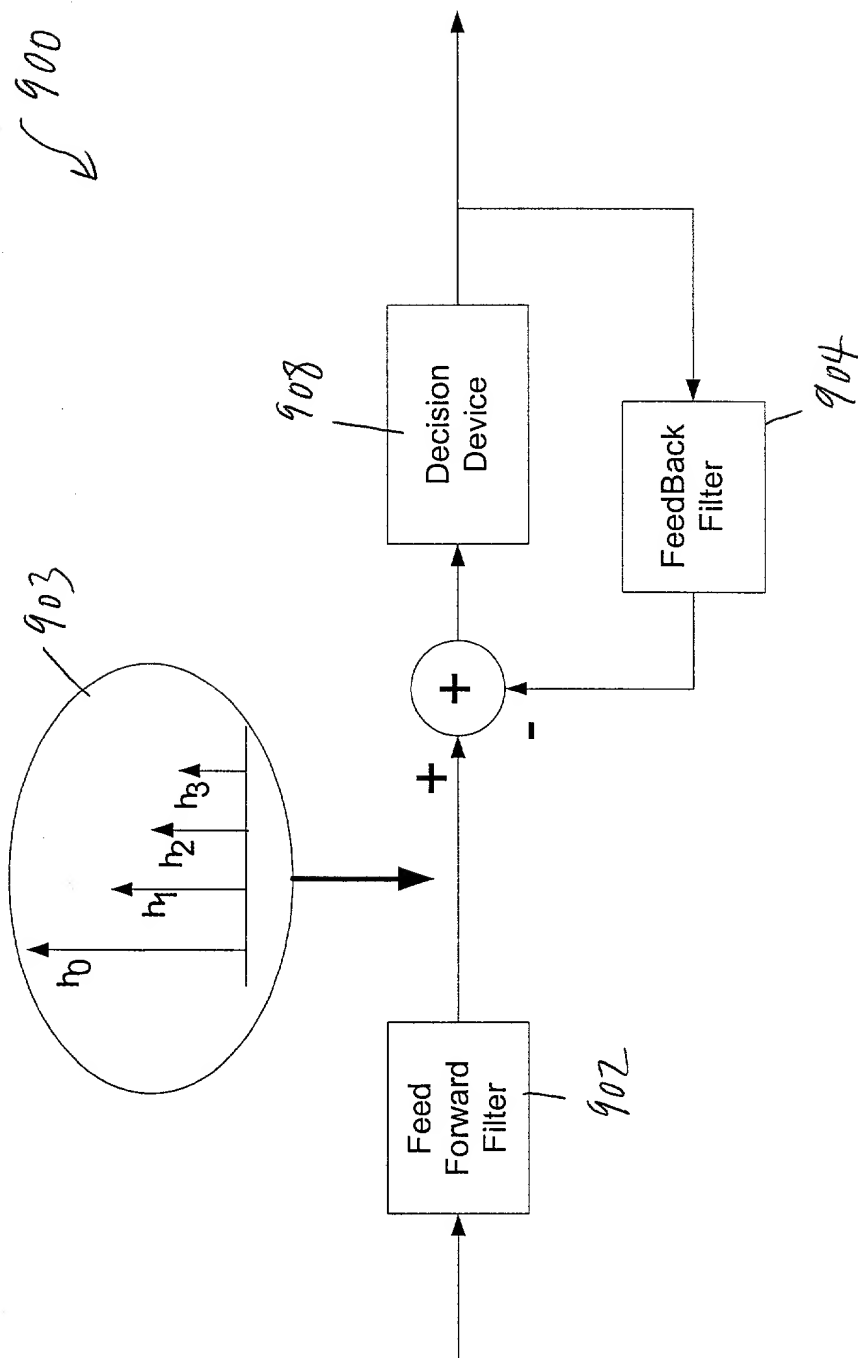


Figure 9 (Prior Art)



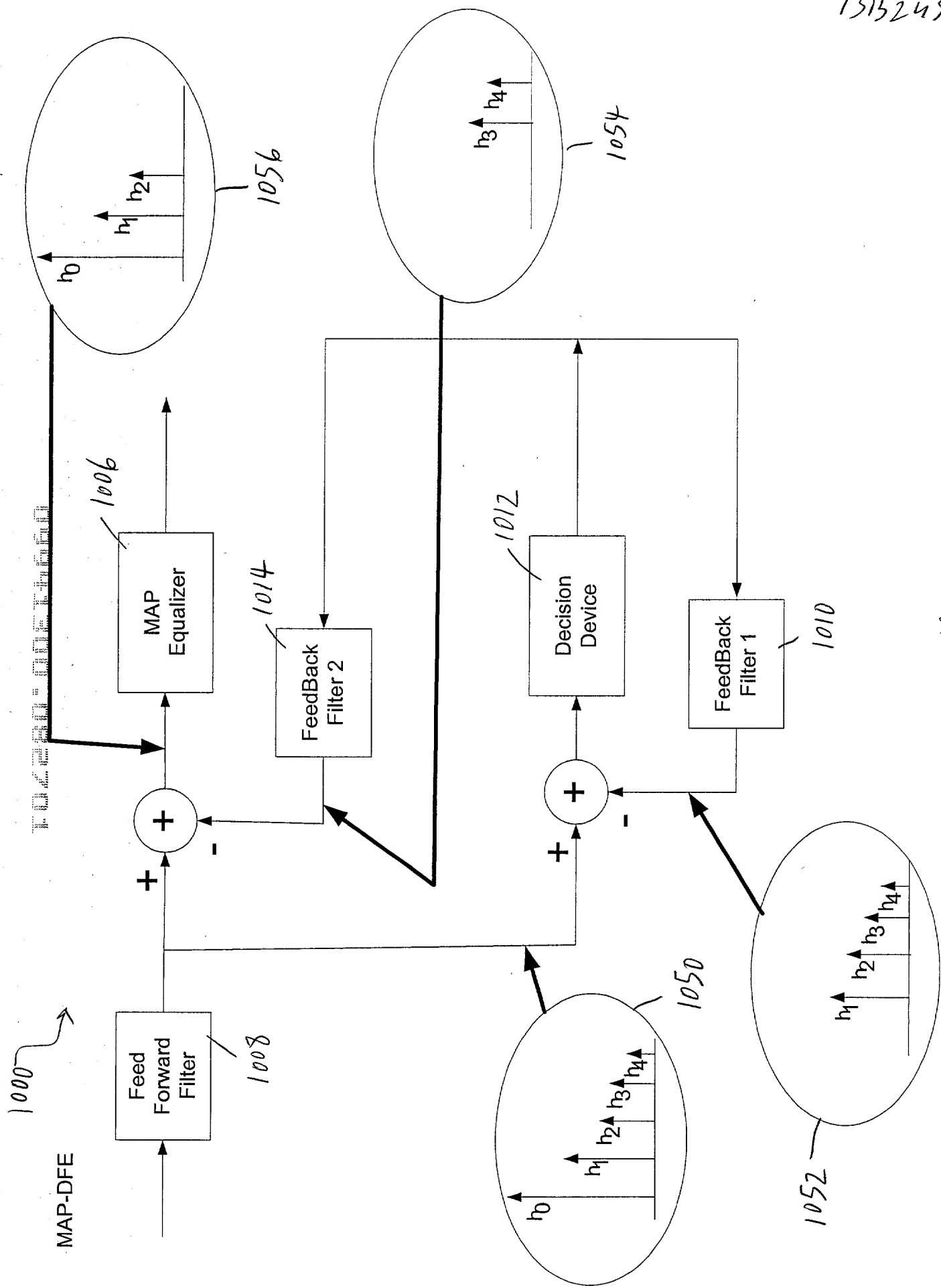
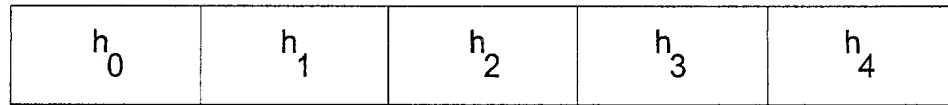


Figure 10

13152 u502

1100

Channel



$L_1$   
1102

$L$   
1104

Modulation =  $M$

Equalizer complexity (States) =  $M^L$

Figure 11

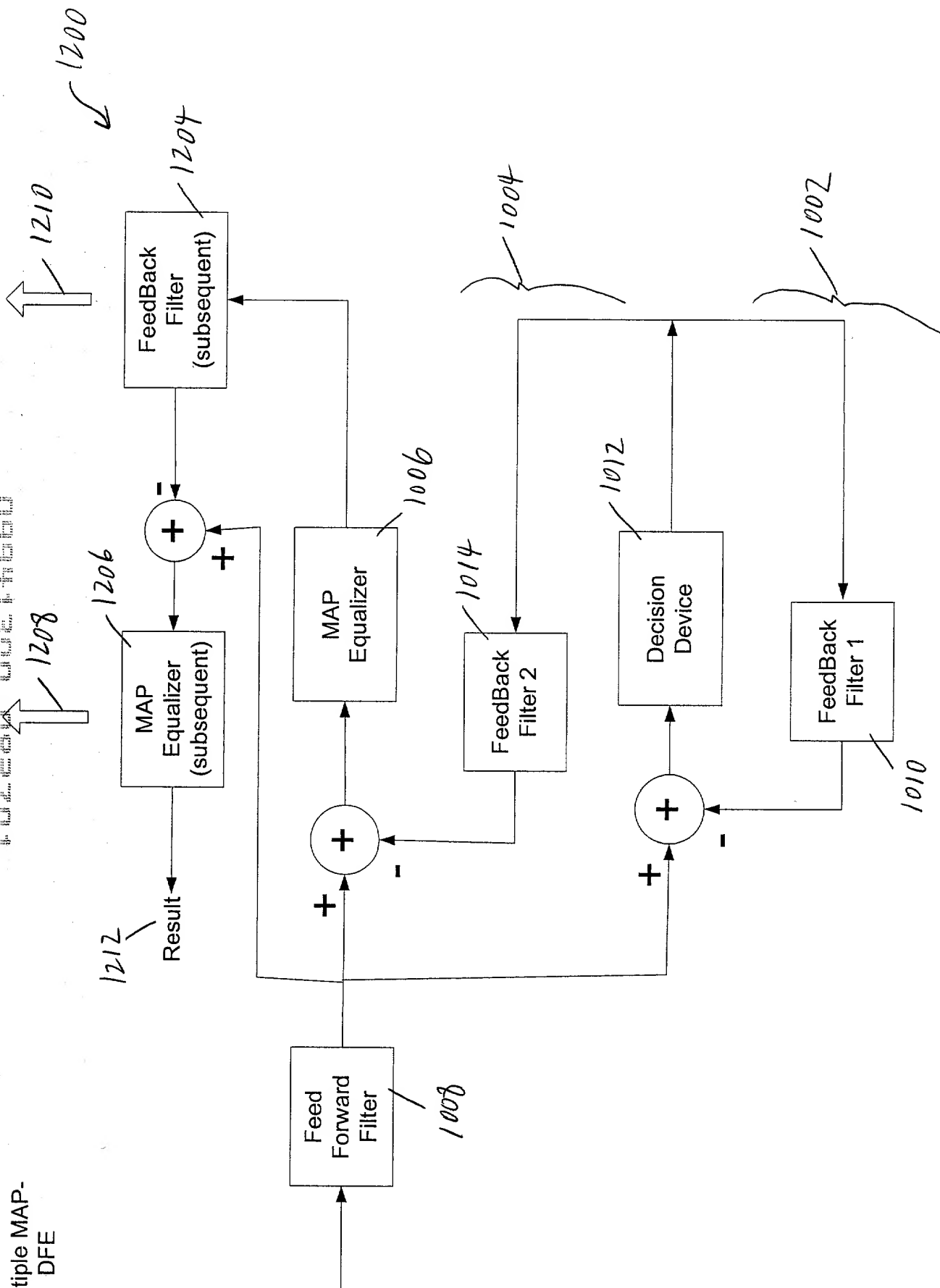


Figure 12

Incoming signal  
from channel

1301

Estimate Channel

1302

Derive Feedback  
and feedforward  
coefficients

1304

Pass through  
feedforward filter

1306

Utilize first DFE to  
form tentative  
symbol decisions

1308

Utilize second  
DFE to cancel  
certain distant  
post-cursors

1310

Utilize MAP  
equalizer on  
constrained signal

1312

Utilize equalized  
signal in system

1314

Cancel distant  
post-cursors via  
subsequent DFE

1316

Utilize subsequent  
MAP on  
constrained signal  
again

1318

Process  
again?

1320

No

Yes

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1300

Figure 13